

ACCESSION NUMBER: 1998:268610 CAPLUS  
 DOCUMENT NUMBER: 128:306870  
 TITLE: Production of cartilage tissue using cells isolated from wharton's jelly  
 INVENTOR(S): Purchio, Anthony F.; Naughton, Brian A.; San Roman, Julia  
 PATENT ASSIGNEE(S): Advanced Tissue Sciences, Inc., USA  
 SOURCE: PCT Int. Appl., 86 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9817791	A1	19980430	WO 1997-US18862	19971023 <--
W: AU, CA, JP, KR, NZ				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5919702	A	19990706	US 1996-735620	19961023 <--
CA 2269121	A1	19980430	CA 1997-2269121	19971023 <--
AU 9749888	A	19980515	AU 1997-49888	19971023 <--
AU 731827	B2	20010405		
EP 939803	A1	19990908	EP 1997-912786	19971023 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
NZ 335531	A	20000929	NZ 1997-335531	19971023 <--
JP 2001502905	T	20010306	JP 1998-519528	19971023 <--
KR 2000052709	A	20000825	KR 1999-703506	19990422 <--
PRIORITY APPLN. INFO.:				
			US 1996-735620	A 19961023
			WO 1997-US18862	W 19971023

AB The invention relates to the isolation and use of pre-chondrocytes from the umbilical cord, specifically from wharton's jelly, that give rise to chondrocytes which produce cartilage. Cartilage tissue contains a framework of biodegradable material such as polyglycolic acid, cotton, cat gut sutures, cellulose, gelatin, collagen, or polyhydroxyalkanoates. The isolated pre-chondrocytes, or the chondrocytes to which they give rise, can be mitotically expanded in culture and used in the production of new cartilage tissue for therapeutic use. The cells are cultured in a biodegradable biocompatible hydrogel solution or alginate or salts and growth factors (such as transforming growth factor  $\beta$ ) on a 3-dimensional mesh or scaffold. The framework materials may include polyamides, polyesters, polystyrene, polypropylene, collagen, cat gut, nitrocellulose, cotton, polycarbonate, polyvinylchloride, polytetrafluorethylene, hyaluronic acid, and polyglycolic acid. "Banks" of pre-chondrocytes or chondrocytes can be stored frozen, and thawed and used to produce new cartilage tissue as needed.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

(FILE 'HOME' ENTERED AT 10:27:01 ON 09 SEP 2007)

FILE 'CAPLUS, MEDLINE, EMBASE, BIOSIS, LIFESCI' ENTERED AT 10:27:25 ON 09 SEP 2007

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L1      95 S (UCMS) OR (UMBILICAL CORD MATRIX STEM) OR (WHARTON? JELLY CEL
L2      38 S L1 AND PY<=2002
L3      0 S L2 AND (FRACTIONAT? OR CENTRIFUG?)
L4      0 S L2 AND PURIFY?
L5      0 S L2 AND PURIF?
L6      0 S L2 AND FEEDER
L7      17 DUP REM L2 (21 DUPLICATES REMOVED)
L8      10009 S WEISS M?/AU
L9      41 S L8 AND UMBILICAL
L10     14 S L9 AND WHARTON?
L11     2 S L10 AND PY<=2002
L12     2 DUP REM L11 (0 DUPLICATES REMOVED)
L13     677 S TROYER D?/AU
L14     33 S L13 AND UMBILICAL
L15     4 S L14 AND PY<=2002
L16     3 DUP REM L15 (1 DUPLICATE REMOVED)
L17     10796 S DAVIS D?/AU
L18     44 S L17 AND UMBILICAL
L19     29 S L18 AND PY<=2002
L20     16 DUP REM L19 (13 DUPLICATES REMOVED)
L21     2791 S MITCHELL K?/AU
L22     24 S L21 AND UMBILICAL
L23     2 S L22 AND PY<2002
L24     3 S L22 AND PY<=2002
L25     3 DUP REM L24 (0 DUPLICATES REMOVED)
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**Ton, Thaian**

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**From:** Ton, Thaian  
**Sent:** Sunday, September 09, 2007 11:05 AM  
**To:** STIC-ILL Electronic  
**Cc:** Ton, Thaian  
**Subject:** Reference Request 10/647,361

I would like to request the following:

**TITLE:** Wharton's jelly mesenchymal cells form neurons  
and glia.  
**AUTHOR(S):** Mitchell, Kathy E. [Reprint author]; Weiss, Mark  
[Reprint author]; Davis, Duane; Baughman, Aubrey M.  
[Reprint author]; Beerenstrauch, Mark A. [Reprint author];  
Troyer, Deryl [Reprint author]  
**CORPORATE SOURCE:** Anatomy and Physiology, Kansas State University, 228 Coles  
Hall, Manhattan, KS, 66506-5802, USA  
**SOURCE:** Molecular Biology of the Cell, (Nov, 2001) Vol.  
12, No. Supplement, pp. 365a. print.  
Meeting Info.: 41st Annual Meeting of the American Society  
for Cell Biology. Washington DC, USA. December 08-12, 2001.  
American Society for Cell Biology.  
CODEN: MBCEEV. ISSN: 1059-1524.

Thank you very much.

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